

CLAIMS

What is claimed is:

1. A system comprising:
- a digitizer capable of collecting three-dimensional data about an object;
- an orientation fixture to automatically reposition the object from a first orientation to a second orientation to expose a first aspect and a second aspect of the object relative to the digitizer; and
- a controller to coordinate the automatic repositioning with data capture by the digitizer;
- wherein the orientation fixture and the digitizer are physically independent units.
2. The system of claim 1 wherein at least one of the digitizer and the orientation fixture is capable of automatically locating the relative position of the other.
3. The system of claim 1 wherein the digitizer is capable of automatic calibration.
4. The system of claim 1 further comprising:
- a host to process the three-dimensional data to render a three-dimensional representation of at least a portion of the object.

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1 5. The system of claim 4 wherein the host comprises:
2 a distributed network interface, the interface to transmit the three-
3 dimensional representation to a remote user node.

1 6. The system of claim 4 wherein the digitizer communicates with the
2 host over a wireless link.

1 7. The system of claim 1 wherein the digitizer communicates with the
2 orientation fixture over a wireless link.

1 8. The system of claim 1 wherein the orientation fixture comprises:
2 a self contained power source.

1 9. The system of claim 1 wherein the digitizer comprises:
2 a self contained power source.

1 10. The system of claim 1 wherein the orientation fixture comprises:
2 a distinctive feature that permits the digitizer to acquire the orientation
3 fixture by scanning an area for the distinctive feature.

1 11. The system of claim 1 wherein the orientation fixture comprises:
2 a localized energy source that permits the digitizer to acquire the orientation
3 fixture.

1 12. The system of claim 1 wherein the orientation fixture is a turntable.

1 13. A system comprising:
2 a digitizer having a linear image sensor to collect three-dimensional
3 data about an object;
4 an orientation fixture to automatically reposition the object from a first
5 orientation to a second orientation to expose a first aspect and a second aspect of the
6 object relative to the digitizer, wherein the digitizer and orientation fixture are
7 integrally coupled as a single unit; and
8 a controller to coordinate the automatic repositioning with data
9 capture by the digitizer.

10 14. The system of claim 13 wherein the digitizer is capable of automatic
11 calibration.

12 15. The system of claim 13 comprising:
13 a host to process the three-dimensional data to render a three-
14 dimensional representation of at least a portion of the object.

15 16. The system of claim 15 wherein the host comprises:
16 a distributed network interface, the interface to transmit the three-
17 dimensional representation to a remote node.

18 17. The system of claim 15 wherein the single unit communicates with the
19 host over a wireless link.

1 18. The system of claim 13 wherein the single unit comprises:
2 a self contained power source.

1 19. The system of claim 13 wherein the orientation fixture is a turntable.

1 20. A method comprising:
2 receiving a request over a distributed network to authorize operation
3 of a lockable image capture system at a node remote from the image capture system
4 and coupled to the distributed network; and
5 sending an authorization data to the image capture system across the
6 distributed network such that the image capture system is unlocked and enabled to
7 capture an image.

1 21. The method of claim 20 wherein the image capture system performs
2 three-dimensional imaging.

1 22. The method of claim 20 further comprising:
2 reprogramming a reconfigurable array of logic of the image capture
3 system from a remote node.

1 23. A method comprising:
2 capturing image data in an image capture device coupled to a
3 distributed network;

4 preventing access to the image data by a local user until an
5 authorization is received; and
6 allowing access to the image data upon receipt of the authorization
7 from a remote node on the distributed network.

1 24. The method of claim 23 wherein preventing access comprises:
2 encrypting the image data with an algorithm that can be decrypted with
3 information from the remote node.

25. The method of claim 24 wherein preventing access further comprises:
disabling local storage of the encrypted image data.

26. The method of 24 further comprising:
uploading the encrypted image data to the remote node.

27. A system comprising:
2 a digitizer capable of collecting three-dimensional data about an object;
3 an orientation fixture to automatically reposition the object from a first
4 orientation to a second orientation to expose a first aspect and a second aspect of the
5 object relative to the digitizer;
6 a controller to coordinate the automatic repositioning with data
7 collection by the digitizer; and
8 a data analyzer to identify points of interest in the data collected
9 wherein the digitizer and orientation fixture automatically rescan a portion of the

10 object corresponding to a point of interest identified and a three-dimensional model
11 of a portion of the object is adjusted based on the rescan.

1 28. The system of claim 27 wherein the rescan is conducted at a higher
2 resolution than a resolution of an original scan.

1 29. The system of claim 27 wherein the rescan is conducted using a
2 different capture method.

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